

In the Claims:

Please amend claims as shown. This listing of claims replaces all prior versions.

1. *(Cancelled)*
2. *(Currently Amended)* ~~Ballast circuit according to claim 1;~~ Ballast circuit according to claim 3, characterized in that the first end of the feedback circuit is connected to a serial connection between the two switches of the half-bridge.
3. *(Currently Amended)* ~~Ballast circuit according to claims 1 or 2;~~
Ballast circuit for operating a gas discharge lamp, comprising
_____ a half-bridge DC-AC converter having a voltage controlled oscillator for
alternating switching two switches of said half-bridge, said oscillator having an input
with a control voltage which determines an operating frequency of said half-bridge;
_____ a resonance circuit connected to said half-bridge for feeding the lamp; and
_____ a feedback circuit connected at a first end to said resonance circuit for adjusting
the operating frequency of said half-bridge,
_____ characterized in that
_____ the other end of said feedback circuit is connected to the input of said voltage
controlled oscillator and designed such that during at least a substantial part of a start-up
period of the lamp an equilibrium exists wherein the half-bridge frequency is at least
nearly equal to a resonance frequency and a half-bridge voltage is forced to operate at last
nearly in phase with a half-bridge current; and
_____ characterized in that said oscillator input is further connected to a current supply
and a capacitor, wherein said equilibrium is determined by said current supply loading
said capacitor, and said feedback circuit at least partially unloading said capacitor each
half-bridge switching cycle.
4. *(Previously Presented)* Ballast circuit according to claim 3, characterized in that the ballast circuit is integrated in an IC.
5. *(Cancelled)*

6. (*Currently Amended*) ~~The lamp driver according to claim 5;~~ The lamp driver according to claim 7, characterized in that the first end of the feedback circuit is connected to a serial connection between the two switches of the half-bridge.

7. (*Currently Amended*) ~~The lamp driver according to claim 5 or 6;~~ Lamp driver for operating a gas discharge lamp using a ballast circuit, the lamp driver comprising:
a half-bridge DC-AC converter having a voltage controlled oscillator for alternating
switching two switches of said half-bridge, said oscillator having an input with a control
voltage which determines an operating frequency of said half-bridge;
_____ a resonance circuit connected to said half-bridge for feeding the lamp; and
_____ a feedback circuit connected at a first end to said resonance circuit for adjusting
the operating frequency of said half-bridge,
_____ characterized in that
_____ the other end of said feedback circuit is connected to the input of said voltage
controlled oscillator and designed such that during at least a substantial part of a start-up
period of the lamp an equilibrium exists wherein the half-bridge frequency is at least
nearly equal to a resonance frequency and a half-bridge voltage is forced to operate at last
nearly in phase with a half-bridge current; and
_____ characterized in that said oscillator input is further connected to a current supply
and a capacitor, wherein said equilibrium is determined by said current supply loading
said capacitor, and said feedback circuit at least partially unloading said capacitor each
half-bridge switching cycle.

8. (*Previously Presented*) The lamp driver according to claim 7, characterized in that the ballast circuit is integrated in an IC.